THE FARM INDEX

U.S. Department of Agriculture March 1975

This Land of Ours

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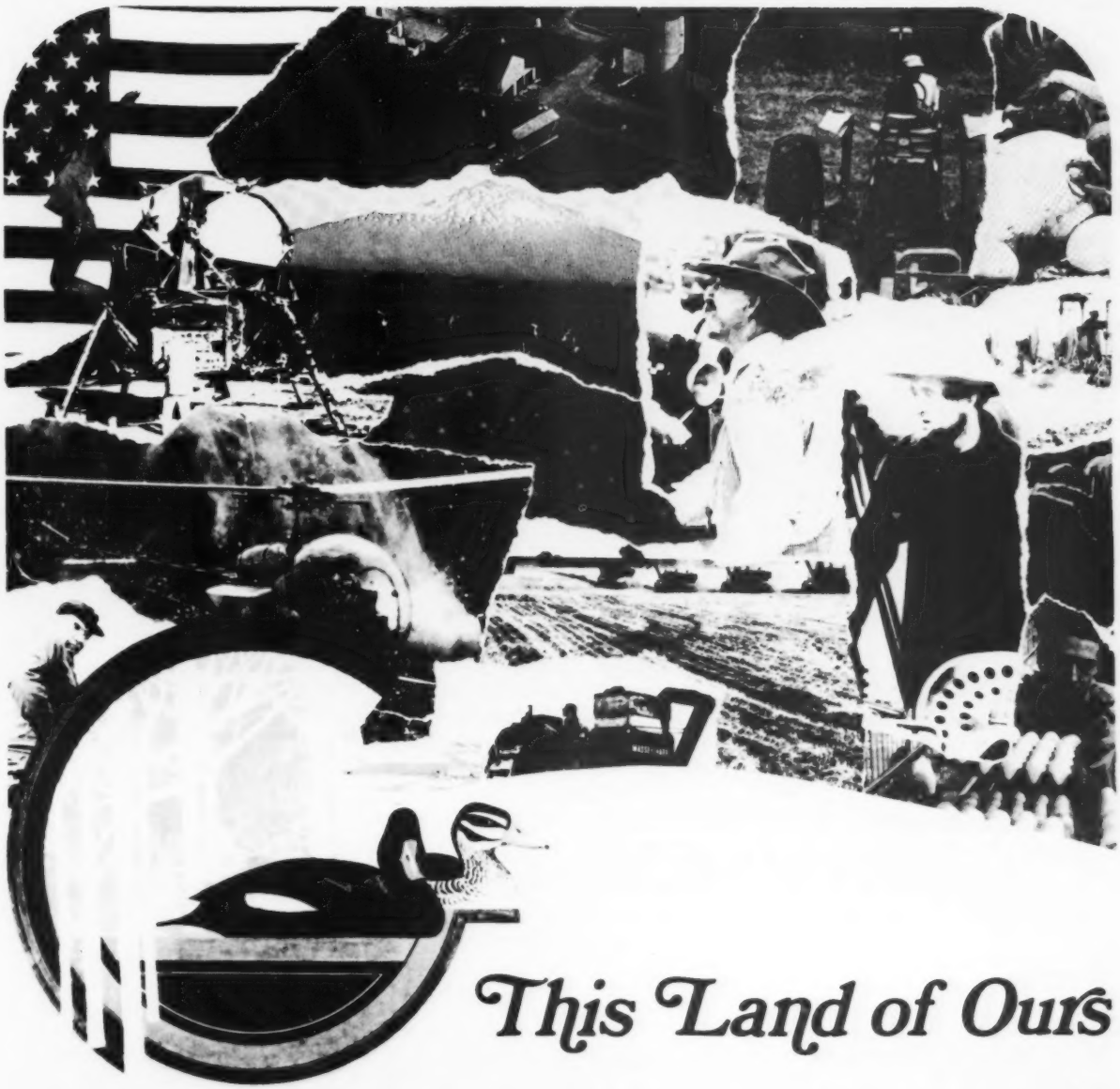


This Land of Ours

In little more than a century, the pioneer farmer's ax and plow brought into agricultural use more than 300 million acres of virgin forests and almost as much virgin grassland, an acreage equal to all the land east of the Mississippi.

For most of that time, many of our forebears were going about the business of settling, developing, and exploiting this enormous land mass. It was not until the mid-1900's that people really began to raise questions of how we should use this land.

By 1900, most of the land favorable for agricultural use had been developed. But we continued to irrigate dry lands and drain wetlands until 1920 when cropland acreage leveled off at about a fifth of the Nation's total land area. Grassland pasture and range make up a fourth of the total, forests a third, and wasteland an eighth.

Open space prevails. Despite a doubling of population, urban and transportation uses still take less than 3 percent of our total land area.

Furthermore, although cropland has been abandoned in some areas and developed in others, the pattern of land use has remained virtually unchanged for half a century.

Abandonment has been running at a rate of almost 3 million acres a year in recent decades. Most of it

The horse-drawn plows of pioneer farmers carved a vast acreage from virgin forests and grasslands.

has been in the States south and east of the Corn Belt, except for the Delta and Southern Florida. East of the Mississippi River, farmers worked the land too hard and reduced the soil fertility. And some of the terrain was not adapted to efficient use of machinery—fields were too small, rough, or isolated. In large areas of Oklahoma and Texas, farmers trying to grow crops got blown out by dust storms, and wisely let that cropland revert to grass.

Adding new cropland. But elsewhere, farmers were adding acreage, almost offsetting abandonment. New cropland has been added at a rate of 1.3 million acres a year. Most of this came from drainage and irrigation in Florida; clearing and drainage in the Delta; expanded irrigation in the Central Plains, California, and Washington; improved dryland farming techniques in Montana; and drainage, clearing, contouring, and leveling in the Corn Belt.

Irrigation development since 1900 has had a significant impact on agricultural output. Only 10 percent of our crop acres are irrigated, but they

The U.S. is rich in grazing land for livestock—a fourth of our land area is grassland pasture and range.

Snow-fed lakes and streams provide irrigation water for many mountainous regions in the West.

provide 20 percent of production. An additional 5 million acres of pasture are irrigated in the arid West.

Up to World War II, stream water provided most of the irrigation, mainly in the Mountain and Pacific regions. Since then, wells have taken over—particularly in the Plains States. Together, these regions today account for almost a third of the total irrigated acreage compared with only a sixth in 1939.

Water's biggest user. As a result of irrigation development, agriculture is the Nation's biggest user of water. Total national use amounts to nearly a fifth of the runoff supply (1,800 billion gallons a day). Agriculture takes a third of the total use for irrigation.

Homes, industry, and commerce account for the rest. They return most of the water to streams—only 5 percent disappears in use. But in agriculture, more than half of the water used for irrigation is consumed; that is, it disappears by evaporation or transpiration.

Irrigation accounts for only a third of total water withdrawn but 84 percent of that actually used.

There is great variation in water used by regions. Alaska has a third of runoff supply but uses very little. About 40 percent of the Nation's supply comes from the Mississippi basin eastward. About a fourth is withdrawn but very little is consumed as almost all is returned to streams.

Irrigating the West. A fourth of the Nation's runoff supply is west of the Mississippi basin where most of the irrigation occurs. A third of this is withdrawn, half of which disappears in use.

Even in the West, the use pattern varies. In one irrigation region—from Texas to Nevada—two-thirds of the water supply is withdrawn and a third of the total supply disappears in use.

Such full use of the water supply can lead to problems. These include salinity problems—the accumulation of salt in the soil—and periodic shortages of irrigation water. Prob-

Out of the Wilderness

When the pioneers first began their work, forests covered about half of the land in the U.S. Two-fifths was in grass and herbaceous plants, and the rest was dry and barren.

They found most of the East to be a forest, broken only by the prairies of the Corn Belt and parts of Mississippi and Alabama. The tall grasses which extended from the Corn Belt into the Great Plains gave way farther west to short grasses adapted to limited rainfall. In the mountains west of the Plains, small scattered forests were interspersed with dry valleys and basins. The West had less than a fifth of the total original forests of commercial quality.

Today our forest area is only two-thirds its original size. More than half of the eastern forest has been cleared for cropland, pasture, and urban areas. The commercial forests of the West have been reduced about one-fourth.

Much of the original tall-grass land of the Central States now produces crops and pasture. It is one of the most productive farming regions in the world. The better lands of the short-grass regions farther west are used for irrigated or dry-farm crops. The rest is used as grazing land for cattle and other livestock.

lems also are developing in some Central Plains irrigation areas where the water table has receded to a point that some irrigation has been discontinued.

Land in production. About 60 percent of the Nation's land area, including forest land grazed, is used for agricultural production. About 1 billion acres (47 percent) are in farms, a level reached about 1930. Another 300 million acres, mainly Federal rangeland, are used for grazing. Nearly half of our agricultural land was in use by 1870.

The billion acres of land in farms comprises cropland (44 percent), permanent grassland (43 percent), forestland grazed (6 percent), forest land not grazed (5 percent), and miscellaneous acres (2 percent).

About a fifth of the cropland is used for pasture, which produces almost as much forage as all other pasture and rangeland. The remaining 80 percent, or 385 million acres, account for the Nation's crop output. Cropland acreage has remained virtually unchanged for half a century.

Rising productivity. Until 1950, crop yields per acre showed only a slight uptrend. The rise in production came from additional acreage farmed. Nevertheless, production tended to run ahead of demand, and periodic surpluses occurred.

The agricultural revolution of the early 1950's changed things drastically. Productivity per acre increased two-thirds by 1972. Output was up 50 percent, even though the acreage set aside or diverted from crop production under Federal programs ranged from 37 to 65 million acres during 1961-72.

Output increased enough after 1950 to provide 37 percent more people with 9 percent more food per person, even though a fifth of our harvest was exported.

Production exceeded use in several years of the 1950's and 1960's and grain surpluses were a chronic problem. Now, however, grain stocks are down to minimum levels and the cropland set-aside program has been discontinued.

Drainage and irrigation ditches have improved much of our cropland.

Limited controls. Except for Federal programs to reduce production and promote conservation, problems involving the use of agricultural land have received little public attention until recent years.

Over the century in which Americans were bringing a continent into farming use, the population was growing rapidly. Nevertheless, the country remained sparsely settled. With food supplies abundant and often in surplus, government control over land use was largely limited to laws governing nuisance and trespass.

Preliminary surveys pave the way for draining this wetlands area.

Control over land was, in fact, less restrictive than in colonial times when use and ownership of land were governed by the English feudal system. The crown served as a universal "landlord" and oaths and tributes were required. Dissatisfaction with the colonial land system was among the irritants that led to the outbreak of revolution in 1775.

The last vestiges of the feudal system were wiped out by the framers of the Constitution. Under it, owners had the right to treat their land as a freely marketable commodity.

Pressures for regulation. By the beginning of this century, however, many cities were becoming concerned with the impact of uncontrolled land use on health, safety, and property values. They sought and received authority from State governments to zone land and regulate subdivisions.

Accelerating urbanization brought land use problems into critical focus by the 1960's. This was intensified by growing public awareness of what pollution was doing to the environment. These concerns cut across a wide variety of interest groups, including farmers near metropolitan areas.

Interest in how land is used in rural areas has increased rapidly over the last decade, as indicated by the subject of zoning. All 50 States now authorize the zoning of some unincorporated rural areas. Rural land in three-fourths of the Nation's 3,000 counties can be zoned by some unit of local government.

Local authority. In general, power to regulate rural land use has been delegated to county governments in the South and West, towns or townships in the Northeast, and both counties and towns or townships in the Lake States.

Local governments in rural areas have been slower to exercise their authority than those in metropolitan areas. They also spend relatively less and employ proportionally fewer people on planning and regulatory activities.

The main authorities that have been used by rural governments are controls such as zoning, and incentives such as differential property tax assessments. Other forms of control include public ownership, fee ownership, fee ownership with leaseback or easements, contractual arrangements such as those used in cost sharing, and organizational forms such as special purpose districts.

Competing land uses: farmland gives way to industrial construction.

Rural land issues. The list of emerging land use problems that directly concern agricultural and other rural lands continues to grow. It includes:

- Expanding needs for food and fiber.
- The need to keep productive soils in agricultural use.
- Control of urban sprawl.
- Improvement of air and water quality.
- Improvement of visual quality of the landscape.

Even though the supply of agricultural land remains ample in relation to our population, rural areas are certain to find land use issues more demanding in the future.

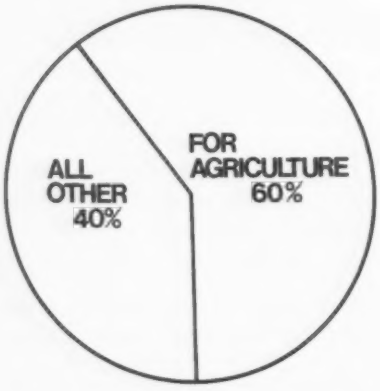
[Based on special material by Orville Krause and William D. Anderson, Natural Resource Economics Division.]

Irrigation wells in the West turn deserts into productive fields.

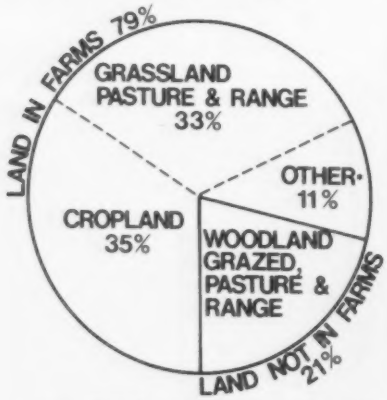
Nearly 3 million acres of cropland are abandoned each year.

How We Use Our Land...and Water

ALL LAND
2.3 BILLION ACRES

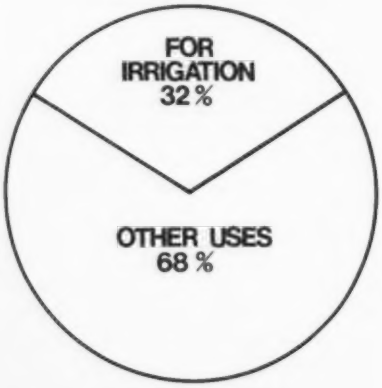


AGRICULTURAL LAND
1.4 BILLION ACRES

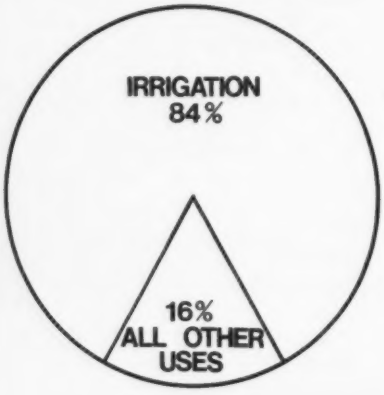


*woodland grazed, forest, and land not actively farmed.

WITHDRAWN FROM RUNOFF SUPPLY
370 BILLION GALLONS A DAY



CONSUMED BY EVAPORATION OR TRANSPIRATION
87 BILLION GALLONS A DAY



RECESSION'S IMPACT ON RURAL AREAS

Recession is an economic disease. How contagious it is in metro and nonmetro areas has varied in past downswings. But the current slump in employment is paining rural communities as much as metro areas. And according to some economic thermometers, recession fever is running even higher in rural America than in the large population centers.

Rural people looking for work won't find much consolation from this right now. But an ERS economist who has charted the economic health of nonmetro areas through boom and bust thinks that once the Nation makes the turn to recovery, rural places should be among the first to get back on their feet.

He points out that following the 1969-70 downturn, nonfarm wage and salary employment in nonmetro units grew at a rate of 5 to 6 percent a year, nearly twice the pace of the metro areas. By the fall of 1973, nonmetro areas had picked up over three-quarters of a million jobs in manufacturing, or roughly half the increase across the U.S. Gains in construction employment were extraordinary as a result of bustling housing activity, the building or renovating of hospitals, clinics, schools, community centers, and roads, and a spurt in plant additions and modifications.

What concerns him and other economists, however, is that the current recession is not a carbon copy of the 1969-70 downturn or earlier setbacks of the postwar era.

During the 1969-70 downturn, nonfarm wage and salary jobs in nonmetro areas continued to grow but at a reduced pace, and unemployment expanded less sharply than in the metro units. Earlier, cotton and lumber mills folded for good, often because they were out of date and inefficient or because raw materials had been exhausted.

This time, the ERS economist says, most of the cutbacks reflect what he calls "a highly unusual combination of factors like reduced consumer demand and a general unwillingness to cut prices."

In November 1973-74, nonmetro areas lost manufacturing jobs at about twice the rate in the metro units, and losses erased a third of the gain over the preceding 3 years. Job cutbacks were pronounced in building materials, textiles, synthetic fibers, and wearing apparel.

Construction employment held up much better in nonmetro communities, with job gains on industrial, utilities, and public works projects nearly offsetting declines in rural homebuilding.

Even so, had it not been for strong employment gains in services and government, losses instead of slight gains already would have shown up in overall job changes.

Especially in November and December and extending into 1975, rural unemployment rolls swelled rapidly. Added to workers laid off locally were unusually large numbers of returnees who had lost construction, trade, and auto jobs in major labor market centers.

Compelling needs for food and energy should continue to bolster the economies of many rural areas. Products and industries that may again prove recession-resistant are: drugs; most basic chemicals; plastics; fertilizers; business, education, health, and most other private or government services.

And the signs of recovery to watch for:

- Revival of homebuilding; lower mortgage rates and costs of materials, land, and labor; fewer unsold houses and cheaper models.
- Upsurge in consumer buying to clear shelves and spur production.
- Turnabout in capital spending, especially for deferred projects.

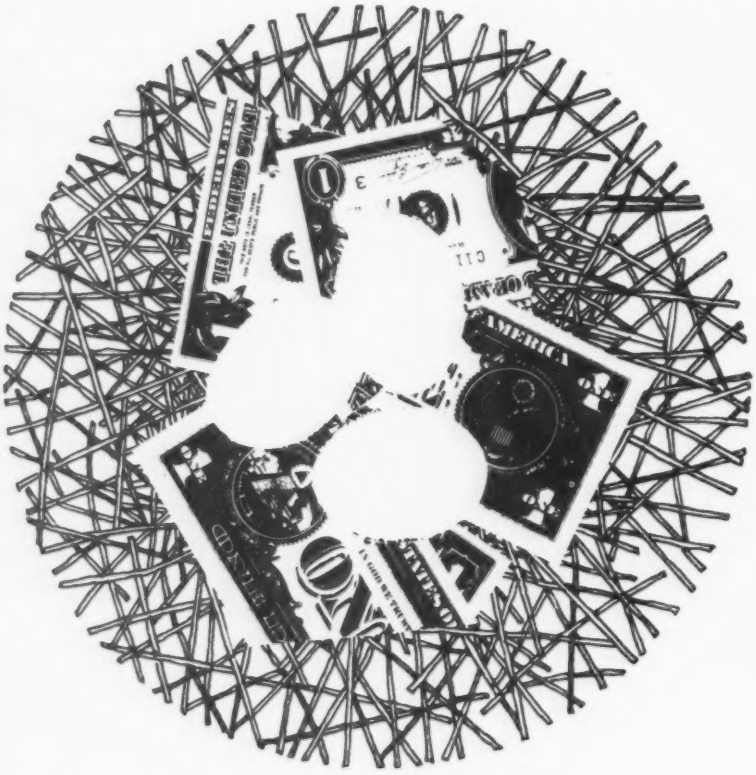
[Based on special material by Claude C. Haren, Economic Development Division.]

NONFARM EMPLOYMENT CHANGES: METRO & NONMETRO [1]

	Expansion Period		Contraction Period					
	Mar '71-Nov '73		Nov '73-Nov '74		Nov '73-Mar '74		Mar '74-Nov '74	
	Thou.	Pct.	Thou.	Pct.	Thou.	Pct.	Thou.	Pct.
NONMETRO [2]	951.8	5.4	56.8	0.3	112.8	0.6	28.9	0.1
Mining	7.5	1.8	9.5	2.2	12.6	2.9	8.0	1.8
Construction	105.7	12.3	−13.4	−1.2	−13.2	−1.2	−13.5	−1.2
Manufacturing	307.4	6.1	−289.4	−5.0	−255.6	−4.4	−306.3	−5.3
TCU [3]	33.1	3.5	13.6	1.3	30.3	2.9	5.2	0.5
Trade	222.6	6.3	46.8	1.1	57.0	1.4	41.7	1.0
FIRE [3]	35.2	6.2	4.8	0.7	0.9	0.1	6.8	1.0
Services	119.9	4.9	121.2	4.4	140.1	5.0	111.8	4.0
Government	120.4	3.2	163.7	4.0	140.7	3.4	175.2	4.2
METRO	1,663.8	3.1	167.8	0.3	849.9	1.5	−173.4	−0.3
Mining	1.5	0.7	9.5	4.5	13.2	6.3	7.6	3.5
Construction	105.6	4.0	−199.7	−6.8	163.8	5.6	−381.4	−12.7
Manufacturing	323.1	2.4	−381.9	−2.6	−310.5	−2.2	−417.6	−2.9
TCU	42.8	1.2	−2.3	−0.1	54.6	1.5	−30.8	−0.8
Trade	398.8	3.4	116.5	0.9	318.9	2.5	15.3	0.1
FIRE	106.1	3.3	74.6	2.2	73.2	2.1	75.3	2.2
Services	408.7	4.4	278.6	2.7	264.9	2.5	285.4	2.7
Government	277.2	3.1	272.5	2.8	271.8	2.8	272.8	2.8

[1] Adapted from State employment security agency estimates for mid-March and mid-November of respective years, seasonally adjusted. Includes only wage and salary employment. [2] Areas essentially outside Standard Metropolitan Statistical Area designations thru 1974, but including a cross section of 45 smaller SMSAs for which comparative statistics were not readily available. [3] TCU: Transportation, Communication, and Utilities; FIRE: Finance, Insurance, and Real Estate.

Nest egg for retirement



Bill Frost makes all his bread by raising wheat in Oklahoma. Jim Blake banks on factory work for most of his income but also raises turkeys on the side. Jane Denning, housewife, picks up extra money in Florida picking oranges.

All farmers? In some respects, yes. And that's not all these people have in common. Their agricultural earnings could provide them with a tax-sheltered nest egg for retirement. That is, they could if the three took advantage of the Keogh Plan.

This retirement-fund plan has been in effect since 1962, but recent revisions have made it more attractive to the self-employed person, whether farmer, businessman, or laborer.

Is the Keogh Plan for you? The following questions and answers could help you decide.

Q. What is the Keogh Act and what does it do?

A. Also known as H.R. 10, the Act allows self-employed people like farmers to establish tax-sheltered retirement funds. It extends the tax benefits that corporate employees have enjoyed for years to noncorporate employees. The funds yield interest of 5-10 percent, depending on the risk of investment.

Q. Who is eligible?

A. Just about anyone who has income from his own trade or business and pays the Social Security self-employment tax on his earnings. This income need not be the sole or main source of support—the income from moonlighting qualifies, even if the regular job is covered by another retirement plan. However, an individual may not create a Keogh Plan for himself to the exclusion of others who work for the business the plan covers. If he has full-time employees who have worked for the business more than 3 consecutive years, they must be covered by the same plan. Though salaried employees cannot start a Keogh plan, they can take advantage of a plan through their employer.

Q. What changes did the Employee Retirement Income Security Act of 1974 make in the original Keogh Act?

A. Basically, there are three important changes already in effect—

- The annual limit on contributions has been increased from the lesser of $2,500 or 10 percent of self-employment income to $7,500 or 15 percent.
- A minimum floor has been set on contributions—a provision particularly important to people with small part-time businesses or farms. The floor is $750, or a person's entire self-employment income for the year, whichever is less. This floor allows the low-income businessman or farmer the option to accumulate a more adequate retirement fund.
- There is now greater flexibility in administering the funds. Under the old law, no new money could be added to the retirement fund after the end of the year and still qualify for tax-exempt status. On the other hand, excess contributions were to be quickly returned to the contributor. These rules often made life more difficult for the individual who had a variable income. If he could not anticipate his income correctly, he either contributed too little or too much—either way, he was penalized. Under the new law, he has 3 additional months to make allowable contributions, and the penalties for temporary overcontributions are not as severe as they were.

Three more changes to be in effect after December 31, 1975, are:

- "Full-time employee" will be re-

defined. Anyone who works 1,000 hours in a year will be considered full-time, regardless of how many months he is employed or the interval between times of employment. If a Keogh retirement fund is instituted where he works, he must be covered if he works 1,000 hours per year for 3 consecutive years. This could mean a big increase in the coverage of seasonal workers in the future.

• The penalty for withdrawing money from the fund before retirement age will increase sharply. The old penalty was 10 percent of the taxes due on the withdrawn funds. The new law, however, will assess a 10-percent penalty on the withdrawn funds, plus full income taxes.

• Those with variable incomes can retain excess yearly contributions to the fund, but at a penalty tax of 6 percent.

Q. Are there any limitations on investing the funds?

A. Yes, but they are quite flexible, particularly after the recent changes in the law. Trusteeship was once limited to banks. Now, stock brokers and financial institutions other than banks—mutual funds, insurance companies, and savings and loan companies—are included (subject to approval by the Secretary of the Treasury). And the funds can be invested in a variety of ways, depending on how the fund is organized: e.g., bank or trustee-endorsed investments (which could be just about any kind of an asset), mutual funds, life insurance annuities, savings and loan deposits, and Government retirement bonds.

Q. When can you start drawing from the retirement fund? And what kind of taxes are due?

A. You can start drawing from your fund anytime between the ages of 59½ and 70½, but you must start before the later age. Regular income taxes are due on the money withdrawn, but the individual is usually in a lower tax bracket during retirement than when he originally earned the money. Therefore, the Keogh Plan not only provides a means of redistributing income to better fit an individual's spending needs, it also simultaneously lowers his income taxes.

Q. What if you would like to join such a fund but don't have many years until retirement? Are you allowed to add more money to insure a more adequate retirement income?

A. Yes, more money can be added per year, but it will not be tax sheltered. However, the earnings from this money will be sheltered from current income taxes. The additional amount of money that can be contributed under this option is the lesser of $2,500 a year or 10 percent of annual self-employment income.

Q. If you work for a business that doesn't have a Keogh plan and the owner doesn't want to start one, can you put aside some part of your income in a retirement fund anyway?

A. Yes, but not under the Keogh Plan. The Employee Retirement Income Security Act of 1974 provides for an "Individual Retirement Account (IRA)," where individuals working for a company that does not have a pension plan may contribute to a tax-exempt fund independently of any company policy. Of course, this applies to business owners, too. If owners set up an IRA for themselves, they need not include their employees or may only include certain employees. The yearly contribution limit for an IRA is the lesser of $1,500 or 15 percent of income.

Q. How do you find out more about the Keogh Plan?

A. First, by reading IRS-560, the Internal Revenue Service's publication on the Keogh Act. This will provide a good introduction to the basic regulations, and the April 1975 edition will discuss the recent changes in the law. The next step should be to contact the agency or agent who would supervise the fund, or for more information, contact the IRS.

[Based on the manuscript The Keogh Plans: Facts and Recent Changes, by Charles A. Sisson, National Economic Analysis Division.]

Machine Age Comes To Orange Harvesting

What comes to mind when you picture an orange harvester? A man on a ladder?

Well, the actual scene is still about like that. But mechanical harvesters—like trunk shakers and air and waterblasting machines—are moving to the fore, thanks to the soaring cost of labor in today's economy.

According to an ERS study of harvesting costs in Florida, trunk shakers in 1973-74 saved orange growers an average of 14 cents per box over hand picking, which averaged 89 cents that year. A limb shaker system saved 12 cents per box, a waterblast system, 9 cents, and an airharvest system, 7 cents.

So, why don't all growers use mechanical harvesters? For one thing, there may be physical limitations—the tree trunks in a grove may not be long enough for the trunk shaker, or a good water supply for a waterblast setup may not be handy. And the grove may be too small to warrant investment costs.

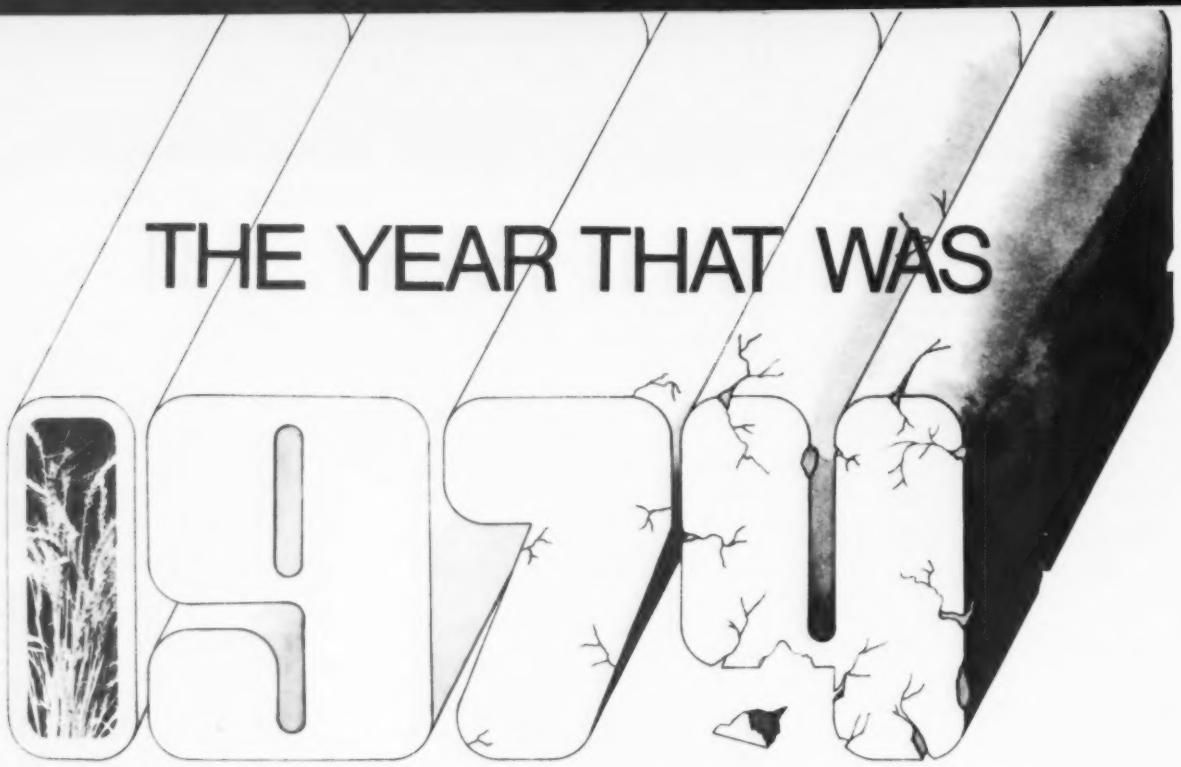
Another drawback: damages to the oranges themselves. Mechanical harvesting often bruises the fruit and reduces the keeping quality. In addition, the chemical used to separate the fruit from the stems discolors and pits the peel.

Another barrier to switching to mechanical harvesting is the investment risk. Growers worry that newer, improved systems may be developed, thus making their equipment obsolete. And if a freeze or other disaster wipes out most or all of a crop, the bills on the mechanical system are still due.

Despite these limitations more orange growers may be forced to join the machine age. The labor situation will hold the key to the momentum, with wage costs and labor supply the deciding factors.

[Based on manuscript Mechanical Harvesting Costs for Oranges, by Joe C. Roetheli and G. A. Zepp, National Economic Analysis Division.]

THE YEAR THAT WAS



What happened, anyway, to the great expectations for food production and food prices in 1974? As Robert Burns wrote, "The best laid plans of . . . men gang aft agley."

Early spring 1974. *The year's shaping up to be another one of superlatives for American farmers. It looks like the new spring will bring another hefty gain in crop production over the 1973 record, as farmers report plans to up major crop plantings by 17 million acres, 5 percent more than in 1973.*

The logic behind this expansion—

- Many farmers had enjoyed their most profitable year ever in 1973.
- Realized net farm income had skyrocketed to $32.2 billion from $20 billion in 1972.
- Prices for 1973 crops had gone through the roof: $3.90 per bushel for wheat, versus $1.76 the season before; $2.55 for corn, up from $1.57 for the 1972 crop.

Farmers looked forward to continued strong demand from foreign buyers. After all, grain and oilseed reserves in the U.S. and other key producing countries had dwindled. Export demand was exceptionally brisk during late 1973 and seemed equally promising in the year ahead. Although the USSR was winding up its program of large grain purchases, a new major buyer had appeared in 1973—the People's Republic of China. Export prospects for U.S. tobacco and cotton also looked good early in 1974.

Farmers, meanwhile, got strong demand signals from American consumers. Consumers, who had watched 1973 food prices rise 15 percent over the 1972 average, hoped that larger crop production would ease price pressures at the supermarket.

Livestock producers were just as hopeful. Their own bills—for livestock feed and for animals—had grown with other rising prices during 1973. Cattle producers held a record number of animals and had deferred marketing some cattle late in 1973 in response to prolonged price controls. While the marketplace offered high prices for livestock products in early 1974, the surge in the cost of production made these returns inadequate for many producers.

May-June, 1974. *Early spring's sunny outlook gives way to clouds. At the height of the planting season, it begins to rain unmercifully. The Mississippi River inundates millions of acres of rich Delta cotton and soybean land. The grain belt becomes a sea of mud. Wet weather breaks in June, and farmers hurry to complete their planting weeks behind schedule, still managing to put in 11 million acres more than were planted the year before.*

Rain wasn't the only thing that made the 1974 planting season unusual. Not since World War II have we had to resort to fuel allocation. Following the Arab nations' boycott of the U.S. late in 1973 and early in 1974, the Government began an allocation program to make fuel available for vital farm operations.

Fertilizer, another crucial input for farming, was available to farmers in sufficient supply, but at unheard-of prices. Fertilizer had been abundant and cheap until the early 1970's. But world demand subsequently took off, and cartel actions in 1973 raised prices of several raw ingredients of fertilizer production—petroleum and phosphate rock. Prices practically doubled between 1973 and 1974. Furthermore, some dealers'

shelves were bare before planting time. Many farmers, anticipating shortages, had stocked up months earlier.

While clear weather in June was a welcome relief from too much rain, by July it had become a curse of its own—drought. Hot, dry weather across the Midwest was detrimental to pollinating corn. Week by week, it became apparent that many acres would never be harvested, and that yields would be low on those that were. In the fall, renewed precipitation followed by some early hard frosts caused a new round of headaches.

January 1975. *The outcome: Crop production slumped 8 percent below the record established the year before. The corn crop of 4.7 billion bushels turned out 2 billion less than projected in March. Cotton production missed the 12-million bale mark; soybeans barely made 1.2 billion bushels. Records were set, however, for wheat, rice, and tobacco. Combined with the generally smaller 1974 crops, low reserves of crops from the prior season meant that crop supplies available until 1975 crops could be harvested were lower than a year before, even for wheat. Feed grain supplies were especially reduced.*

Farm prices boomed. From July through December, farmers averaged $3.09 for a bushel of corn, $4.50 for wheat, and $7.27 for soybeans—all higher than in 1973.

Dim prospects for bumper output and lower prices of feed grains dashed hopes of profitable livestock production. Feedlot operations bought fewer cattle for feeding activities. Feeder cattle prices nosedived to half the level of a year before. Ranchers, holding a record inventory of young cattle and facing poor range conditions, sent a rising tide of cattle to slaughter directly from ranges or with a minimum of grain fattening. Meat from these "non-fed" animals more than offset reduced output of fed beef, yielding larger supplies for the consumer. But prices of cattle and calves were depressed in the process. In July, Congress approved an emergency measure to guarantee low-cost loans to livestock producers of up to $2 billion.

High feed costs also crippled other joints of the livestock industry. By fall, a major cutback in poultry and hog output was underway. Dairymen got clobbered, too. Milk prices began to weaken in the summer, largely because of declining fluid milk sales. Milk diverted from the bottling plant was manufactured into huge commercial stocks of cheese and powdered milk.

The balance sheet. The year's difficulties showed up in the farmer's financial ledger. Even though the volume of crop sales fell, producers grossed $8 billion more than the 1973 record because of high prices. Livestock men were at the other end of the seesaw, with volume up, thanks to the big cattle marketings, but with cash receipts down by $2 billion. High commodity prices and all-out planting also meant fewer dollars went to farmers through farm programs. Large payments were made under a crop disaster indemnity program which began in 1974, but total Government payments to farmers were $2 billion less than in 1973.

Runaway inflation hurt farmers, too, so they had a harder time meeting expenses. In addition to higher prices for feed, fuel, and fertilizer, costs were up on nearly everything else farmers bought. Also, farmers were bidding strongly against each other for available inputs as they strove for increased production. This was especially true of the farm real estate listings. Land prices zoomed 20-36 percent in key farm States. Surveys taken in November 1973 and November 1974 showed a record 21-percent rise in the U.S. average farm real estate value per acre.

Net income drops. Overall, farm production expenses increased by $10 billion. Even with record gross income, this left farmers with a realized net farm income at an estimated $27 billion, $5½ billion less than the 1973 pinnacle, but still the second-best year on record.

As in 1973, the world was an oyster for the things that U.S. farmers produced. Although the volume of U.S. exports declined, because of smaller grain shipments, the value rose steeply. Export values totaled a record $22.0 billion in 1974, a sizable jump from 1973's $17.7 billion. Again, farm exports made an important contribution to the U.S. trade balance, more than offsetting farm imports of $10.3 billion.

It's true that high commodity prices contributed to another large 14½-percent increase in retail food prices over the 1973 average. Retail prices of fats and oil foods shot up by half; cereal and bakery products soared 30 percent; fruits and vegetables increased 16 percent. Contrasting with crop foods, retail beef prices were only 3 percent higher, pork prices were slightly lower than in 1973, and poultry was 5 percent cheaper. Dairy product prices though, were up nearly a fifth.

Higher marketing margins. But farmers' prices were a minor part of the food price increase. Four-fifths of the higher cost of a market basket of foods purchased during 1974 came from higher charges between the farm gate and dinner plate. These food processing and distributing charges rose a record-shattering 21 percent. Sugar prices were another strong factor, with retail sugar and sweets prices averaging 52 percent higher during 1974.

The year ended in further disappointment as conditions worsened for farmers and as recessionary trends enveloped the economy. Commodity prices began dropping late in 1974 as domestic and foreign demand appeared to weaken. This posed a special problem for the unusual number of farmers who had chosen to hold their crops rather than sell right after harvest. And while farm prices lost ground, farm costs continued rising into the new year.

[Based on special material by the Information Division.]

Recent Publications

Packing California Vine-Ripe Tomatoes: Costs and Efficiencies. Edward V. Jesse, Commodity Economics Division. AER-275.

Using synthesized costs for three model packinghouses, this study points to significant economies of size for California's vine-ripe tomato industry. Cost-savings were primarily attributable to mechanizing the sizing process and substituting bins for field boxes in packinghouse operations. The most efficient packinghouse size for a particular area, however, appeared to depend heavily on season length. Assuming the same seasonal packing volume, minimum costs could be achieved with a much smaller unit in a long-season producing area than in a short-season area.

U.S. Rice Distribution Patterns, 1972/73. J. C. Eiland, Commodity Economics Division. ERS-567.

More rice was distributed for food use in 1972/73 than in the previous year, but not enough to indicate an upward trend in per capita rice consumption. However, the amount of rice used in beer processing was substantially larger. This report summarizes rice distribution data from a mail survey of all known rice milling and repackaging firms in the U.S. for the 1972/73 marketing year. Rice distributed for direct food use is shown by States, regions, and territories, and by size of package, type of grain, and specialty.

Social and Labor Adjustment of Rural Black Americans in the Mississippi Delta: A Case Study of Madison, Ark. Mary Jo Grinstead and J. Martin Redfern, University of Arkansas, and Bernal L. Green, Economic Development Division. AER-274.

In this study of socioeconomic factors affecting employability of the rural poor in industry, the primarily poor black residents of Madison, Ark., did not exhibit the "culture of poverty" often attributed to low-income groups. Although blacks uniformly scored lower than whites on scales measuring socioeconomic status, as a group blacks held better images of work, and were more willing to work, to move, or to commute to find employment than their white counterparts. Lack of transportation was a major deterrent to employment.

Single copies of the publications listed here are available free from The Farm Index, Economic Research Service, Rm. 1664–So., U.S. Department of Agriculture, Washington, D.C. 20250. However, publications indicated by (*) may be obtained only by writing to the experiment station or university. For addresses, see July and December issues of The Farm Index.

The Impact of Dairy Imports on the U.S. Dairy Industry. Economic Research Service, Foreign Agricultural Service, and Agricultural Marketing Service. AER-278.

This study, undertaken in response to the Agriculture and Consumer Protection Act of 1973, examines three trade alternatives for the U.S. dairy industry—(1) a continuation of the existing dairy price support system and import quotas, (2) free trade in dairy products for all countries, and (3) an open U.S. market with no domestic price supports or import quotas. Economists have estimated the impact of these policies on levels of imports into the U.S.; U.S. milk production, consumption, and prices; dairy farmers' net cash income; and the number and size of dairy farms.

Diverter-Type Mechanical Sampling of Grain: A Cost Analysis. L. D. Schnake, Commodity Economics Division, and C. A. Watson, Agricultural Research Service. AER-273.

Grain warehousemen who wish to adopt the warehouseman's sample-lot inspection service for domestically sold grain must install diverter-type mechanical samplers. To help industry decisionmakers determine if such installations are economically feasible for their operations, economists synthesized per bushel sampling costs for five sampler sizes at six levels of annual throughput. Widespread adoption of this inspection system could contribute significantly to railcar utilization, economists believe, and hence, to increased efficiency throughout the grain marketing-transportation complex.

Cotton Gin Operating Costs in the Midsouth, 1971/72 and 1972/73. Joseph L. Ghetti and Zolon M. Looney, Commodity Economics Division. ERS-589.

The fourth in a series of reports analyzing cotton gin operating costs in the Midsouth, this study compares average costs and volumes ginned in 1971/72 and 1972/73. Although average capacity utilization of the sample gins increased from 59 percent in 1971/72 to 64 percent in 1972/73, average total cost per bale also rose—from $18.54 to $19.28.

The World Food Situation and Prospects to 1985. Economic Research Service. FAER-98.

Resulting from the need to compile basic information for the UN World Food Conference last November, this report makes an indepth analysis of the world food situation —past, present, and future. The recent turbulent period— 1972-74—is analyzed in light of the patterns of world food production, consumption, prices, and trade over the past 2 decades. Issues that will shape developments in the coming decade—grain reserve levels, nutritional requirements, food aid, resource availability for producing food, weather, and food demand—are also examined. Projections to 1985 of world food supply and demand are included, and differences among developing countries are outlined.

Economic Trends

Item	Unit or Base Period	1967	1973 Year	1973 Dec.	1974 Oct.	1974 Nov.	1974 Dec.
Prices:							
Prices received by farmers	1967=100	—	172	185	185	182	177
Crops	1967=100	—	164	195	228	224	212
Livestock and products	1967=100	—	179	179	155	153	153
Prices paid, interest, taxes and wage rates	1967=100	—	145	153	177	179	180
Family living items	1967=100	—	138	147	167	171	173
Production items	1967=100	—	146	156	183	183	184
Ratio [1]	1967=100	—	119	120	105	102	98
Wholesale prices, all commodities	1967=100	—	134.7	141.8	170.2	171.9	171.5
Industrial commodities	1967=100	—	125.9	132.2	164.8	165.8	166.1
Farm products	1967=100	—	176.3	187.2	187.5	187.8	183.7
Processed foods and feeds	1967=100	—	148.1	155.7	183.5	189.7	188.2
Consumer price index, all items	1967=100	—	133.1	138.5	153.0	154.3	155.4
Food	1967=100	—	141.4	151.3	166.1	167.8	169.7
Farm Food Market Basket: [2]							
Retail cost	1967=100	—	142.3	152.7	164.6	166.4	167.8
Farm value	1967=100	—	167.2	174.3	180.3	182.3	177.3
Farm-retail spread	1967=100	—	126.4	139.0	154.0	156.3	161.8
Farmers' share of retail cost	Percent	—	46	44	43	42	41
Farm Income: [3]							
Volume of farm marketings	1967=100	—	114	130	162	152	129
Cash receipts from farm marketings	Million dollars	42,817	88,590	8,613	11,542	10,661	8,600
Crops	Million dollars	18,434	42,346	4,981	7,654	7,261	5,400
Livestock and products	Million dollars	24,383	46,244	3,632	3,888	34,000	3,200
Realized gross income [4]	Billion dollars	49.9	97.0	106.7	—	—	102.5
Farm production expenses [4]	Billion dollars	38.3	64.7	69.0	—	—	76.1
Realized net income [4]	Billion dollars	11.6	32.2	37.7	—	—	26.4
Agricultural Trade:							
Agricultural exports	Million dollars	—	17,677	1,973	1,712	2,353	2,120
Agricultural imports	Million dollars	—	8,383	779	741	837	966
Land Values:							
Average value per acre	Dollars	[6] 168	[7] 247	—	—	—	[8] 339
Total value of farm real estate	Billion dollars	[6] 181.9	[7] 259.5	—	—	—	[8] 355.0
Gross National Product: [4]	Billion dollars	793.9	1,294.9	—	—	—	1,430.9
Consumption	Billion dollars	492.1	805.2	—	—	—	895.8
Investment	Billion dollars	116.6	209.4	—	—	—	207.4
Government expenditures	Billion dollars	180.1	276.4	—	—	—	323.8
Net exports	Billion dollars	5.2	3.9	—	—	—	1.9
Income and Spending: [5]							
Personal income, annual rate	Billion dollars	629.3	1,055.0	1,107.1	1,185.0	1,184.5	1,191.0
Total retail sales, monthly rate	Million dollars	26,151	41,943	42,116	45,803	44,469	44,821
Retail sales of food group, monthly rate	Million dollars	5,759	8,811	9,264	10,431	10,455	10,330
Employment and Wages: [9]							
Total civilian employment	Millions	74.4	[9] 84.4	[9] 85.6	[9] 86.3	[9] 85.7	[9] 85.2
Agricultural	Millions	3.8	[9] 3.5	[9] 3.6	[9] 3.4	[9] 3.4	[9] 3.3
Rate of unemployment	Percent	3.8	4.9	4.9	6.0	6.6	7.2
Workweek in manufacturing	Hours	40.6	40.7	40.6	40.1	39.5	39.4
Hourly earnings in manufacturing, unadjusted	Dollars	2.83	4.07	4.22	4.56	4.58	4.65
Industrial Production: [5]	1967 = 100	—	126	126	125	122	118
Manufacturers' Shipments and Inventories: [5]							
Total shipments, monthly rate	Million dollars	46,449	71,398	74,617	88,093	86,152	79,487
Total inventories, book value end of month	Million dollars	84,655	120,870	120,870	145,062	147,062	150,404
Total new orders, monthly rate	Million dollars	46,763	73,836	76,292	86,369	86,369	76,454

[1] Ratio of index of prices received by farmers to index of prices paid, interest, taxes, and farm wage rates. [2] Average annual quantities of farm food products purchased by urban wage earner and clerical worker households (including those of single workers living alone) in 1959–61—estimated monthly. [3] Annual and quarterly data are on 50-State basis. [4] Annual rates seasonally adjusted fourth quarter. [5] Seasonally adjusted. [6] As of March 1, 1967. [7] As of Nov. 1, 1973. [8] As of Nov. 1, 1974. [9] Beginning January 1972 data not strictly comparable with prior data because of adjustment to 1970 Census data.

Sources: U.S. Dept. of Agriculture (Farm Income Situation, Marketing and Transportation Situation, Agricultural Prices, Foreign Agricultural Trade and Farm Real Estate Market Developments); U.S. Dept. of Commerce (Current Industrial Reports, Business News Reports, Monthly Retail Trade Report and Survey of Current Business); and U.S. Dept. of Labor (The Labor Force and Wholesale Price Index).

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